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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,497	03/28/2002	Osamu Tajima	020181	2431

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EXAMINER

CREPEAU, JONATHAN

ART UNIT PAPER NUMBER

1746

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,497

Applicant(s)

TAJIMA, OSAMU

Examiner

Jonathan S. Crepeau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-9 is/are rejected.
- 7) ☒ Claim(s) 4 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The references cited in the Search Report issued on November 6, 2001 have been considered, but will not be listed on any patent resulting from this application because they were not provided on a separate list in compliance with 37 CFR 1.98(a)(1). In order to have the references printed on such resulting patent, a separate listing, preferably on a PTO-1449 form, must be filed within the set period for reply to this Office action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 6, 7, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Gyoten et al (U.S. Patent 6,638,655). In column 8, line 11, the reference teaches a fuel cell apparatus comprising a fuel cell stack, a bubbler tank (i.e., washing liquid tank) containing distilled water that purifies and humidifies an air supply, and a further water tank containing condensed water. As disclosed in column 8, line 22, the condensed water is supplied to the bubbler tank in order to

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prevent the tank from running out of water. This is considered to be anticipatory of the “means for replacing the washing liquid reserved in said washing liquid tank” recited in claim 6, which is considered to invoke 35 USC §112, sixth paragraph. See MPEP §2181. Furthermore, the “means for supplying said washing tank with water in said water tank” recited in claim 9 is also anticipated by the reference. Regarding claim 7, which recites that the means for replacing liquid is operated “every fixed time,” this limitation is given little patentable weight because it does not further limit the structure of the apparatus. See MPEP §2114.

Thus, the instant claims are anticipated.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 5, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gyoten et al in view of JP 6-296817.

Gyoten et al. is applied to claims 6, 7, and 9 for the reasons stated above. However, the reference does not expressly teach that the water is replaced periodically (claim 1) or replaced according to the dirtiness of the washing liquid (claim 8).

JP '817 is directed to an air purification apparatus (see abstract). A water contamination detection sensor measures the contamination of the water in a tank and orders the water discharged and new water introduced when the contamination reaches a predetermined level.

Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the artisan would be motivated to use the contamination sensor of JP '817 in the system of Gyoten et al. In the abstract, JP '817 teaches that the control of the water replacing period is "properly" performed by this apparatus. As such, the artisan would be motivated to contamination sensor of JP '817 in the system of Gyoten et al.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gyoten et al in view of JP 6-296817 as applied to claims 1, 2, 5, and 8 above, and further in view of JP 2000-189739.

Gyoten does not expressly teach that a plurality of washing liquid tanks are disposed in series on the air supply passage, as recited in claim 3.

JP '739 is directed to a filter element of an air cleaner. In Figure 3, the reference teaches a plurality of water tanks disposed in series.

Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the artisan would be motivated to use the series configuration of JP '739 in the system of Gyoten et al. In the abstract, JP '739 teaches that the filter element is "extremely easy in exchange of a filter medium, and having enhanced

maintenance property and economicity.” As such, the artisan would be motivated to use the series configuration of JP ‘739 in the system of Gyoten et al.

Allowable Subject Matter

7. Claims 4 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

Claim 4 recites that the washing liquid tanks are disposed differently from each other in the liquid level. JP ‘739, the closest prior art, does not teach or fairly suggest this feature.

Claim 10 recites that air is flowed through the washing liquid tank and then through the water tank. Gyoten, the closest prior art, does not teach or fairly suggest this feature.

Conclusion

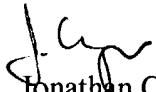
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299. The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr, can be reached at (571) 272-1414. The phone number for the

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organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jonathan Crepeau
Patent Examiner
Art Unit 1746
August 27, 2004